

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Dino J. Farina and Donald C. Swavely

Application No.: 10/825,082

Group Art Unit: 3752

Filed: April 14, 2004

Examiner: Not assigned

Confirmation No.: 7176

Title: METHOD AND APPARATUS FOR MEASURING ACTUATION OF SPRAY DEVICES

CERTIFICATE OF MAILING OR TRANSMISSION	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, or is being facsimile transmitted to the United States Patent and Trademark Office on:	
Nov. 5, 2004	Elaine Leahy
Date	Signature
Elaine Leahy	
Typed or printed name of person signing certificate	

INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Information Disclosure Statement is submitted:

☐ under 37 CFR 1.129(a), or  
(First/Second submission after Final Rejection)

☒ under 37 CFR 1.97(b), or  
(Within any one of the following time periods: three months of filing national application (other than a CPA) or date of entry of the national stage in an international application; or before the mailing date of a first office action on the merits in a non-provisional application, including a CPA, or a Request for Continued Examination).

☐ under 37 CFR 1.97(c) together with either:  
☐ a Statement under 37 CFR 1.97(e), as checked below, or  
☐ a \$180.00 fee under 37 CFR 1.17(p), or  
(After the 37 CFR 1.97(b) time period, but before final action or notice of allowance, whichever occurs first)

☐ under 37 CFR 1.97(d) together with:  
☐ a Statement under 37 CFR 1.97(e), as checked below, and  
☐ a \$180.00 fee under 37 CFR 1.17(p), or  
(Filed after final action or notice of allowance, whichever occurs first, but on or before payment of the issue fee)

☐ under 37 CFR 1.97(i):  
Applicant requests that the IDS and cited reference(s) be placed in the application filewrapper.  
(Filed after payment of issue fee)

Statement Under 37 CFR 1.97(e)

- ☐ Each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement; or
- ☐ No item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned, after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

Statement Under 37 CFR 1.704(d) (Patent Term Adjustment)

Applies to original applications (other than design) filed on or after May 29, 2000

- ☐ Each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in § 1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement.

☒ Enclosed herewith is form PTO-1449:

☒ Copies of the cited non-patent references are enclosed.

☒ Since this application was filed after June 30, 2003, copies of issued U.S. patents and published U.S. applications are not required and are not being provided.

☐ Copies of the cited references are enclosed except those entered in prior application, U.S. Application No. [ ], to which priority under 35 U.S.C. 120 is claimed. [The earlier application contains copies of the cited references.]

☒ The listed references were cited in the enclosed International Search Report in a counterpart foreign application.

☐ The "concise explanation" requirement (non-English references) for reference(s) [ ] under 37 CFR 1.98(a)(3) is satisfied by:

☐ the explanation provided on the attached sheet.

☐ the explanation provided in the Specification.

☐ submission of the enclosed International Search Report.

☐ submission of the enclosed English-language version of a foreign Search Report and/or foreign Office Action.

☐ the enclosed English language abstract.

☐ Applicant requests that the following non-published pending applications be considered:

Examiner's  
Initials

\_\_\_\_ U.S. Patent Application No. [    ], by [inventor(s)], filed [    ], Docket No.: [    ]  
\_\_\_\_ U.S. Patent Application No. [    ], by [inventor(s)], filed [    ], Docket No.: [    ]  
\_\_\_\_ U.S. Patent Application No. [    ], by [inventor(s)], filed [    ], Docket No.: [    ]

\_\_\_\_\_  
Examiner

\_\_\_\_\_  
Date

- ☐ A copy of each above-cited application, including the current claims, is enclosed.
- ☐ A copy of each above-cited application, including the current claims, is enclosed, except those entered in prior application, U.S. Application No. [    ], to which priority under 35 U.S.C. 120 is claimed.

The Examiner is requested to return a copy of the above list of pending applications indicating which references were considered with the next office communication.

It is requested that the information disclosed herein be made of record in this application.

Method of payment:

- ☐ A check for the fee noted above is enclosed, or the fee has been included in the check with the accompanying Reply. A copy of this Statement is enclosed.
- ☐ Please charge Deposit Account 08-0380 in the amount of \$[    ]. A copy of this Statement is enclosed.
- ☒ Please charge any deficiency in fees and credit any overpayment to Deposit Account 08-0380.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By Mark B. Solomon  
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Concord, MA 01742-9133

Dated: 11/5/04

PTO-1449 REPRODUCED

ATTORNEY DOCKET NO.  
3558.1000-001APPLICATION NO.  
10/825,082INFORMATION DISCLOSURE CITATION  
IN AN APPLICATION

October 18, 2004

FIRST NAMED INVENTOR  
Dino J. FarinaFILING DATE  
April 14, 2004EXAMINER Gunnar Gissel  
~~Not assigned~~CONFIRMATION NO.  
7176GROUP  
3752 2856

(Use several sheets if necessary)

## U.S. PATENT DOCUMENTS

EXAM- INER INI- TIAL	REF. NO.	DOCUMENT NUMBER Number-Kind Code (if known)	ISSUE DATE / PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT
/GJG/	AA	Re 34,910	04/18/1995	Funkenbusch et al.
	AB	4,357,670	11/02/1982	McFarlane
	AC	4,415,265	11/15/1983	Campillo et al.
	AD	4,614,300	09/30/1986	Falcoff
	AE	4,965,841	10/23/1990	Kaneko et al.
	AF	4,992,952	02/12/1991	Sasaki
	AG	5,075,014	12/24/1991	Sullivan
	AH	5,337,926	08/16/1994	Drobish et al.
	AI	5,561,527	10/01/1996	Krone-Schmidt et al.
	AJ	5,879,713	03/09/1999	Roth et al.
	AK	6,149,071	11/21/2001	MacCallumMhor et al.
	AA2	6,193,936 B1	02/23/2001	Gardner et al.
	AB2	6,256,597 B1	07/03/2001	Wang et al.
	AC2	6,508,112 B1	01/21/2003	Verhoeven
	AD2			
	AE2			
	AF2			
	AG2			
	AH2			
	AI2			
	AJ2			
	AK2			
	AA3			
	AB3			
	AC3			

EXAMINER

/Gunnar Gissel/

DATE CONSIDERED

11/18/2008

PTO-1449 REPRODUCED  <b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>  October 18, 2004  (Use several sheets if necessary)	ATTORNEY DOCKET NO. 3558.1000-001	APPLICATION NO. 10/825,082	
	FIRST NAMED INVENTOR Dino J. Farina		FILING DATE April 14, 2004
	EXAMINER <del>Not assigned</del> Gunnar Gissel	CONFIRMATION NO. 7176	GROUP <del>3752</del> 2856

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER Country Code-Number-Kind Code (if known)	DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT	TRANSLATION	
					YES	NO
/GJG/	AL	WO 03/000429 A2	01/03/2003	Image Therm Engineering		
	AM					
	AN					
	AO					
	AP					
	AQ					
	AL2					
	AM2					
	AN2					
	AO2					
	AP2					
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	AL4					
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	AO4					
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EXAMINER

/Gunnar Gissel/

DATE CONSIDERED

11/18/2008

PTO-1449 REPRODUCED  <b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>  October 18, 2004  (Use several sheets if necessary)	ATTORNEY DOCKET NO. 3558.1000-001	APPLICATION NO. 10/825,082	
	FIRST NAMED INVENTOR Dino J. Farina		FILING DATE April 14, 2004
	EXAMINER <del>Not assigned</del> Gunnar Gissel	CONFIRMATION NO. 7176	GROUP <del>3752</del> 2856

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
/GJG/AR		Dvorak, P., "How to See Aerosol Spray Patterns and Plumes," <i>Machine Design</i> , 72(13): 122 (2000, July 6).
	AS	Badreldin, Amira M., "Real-Time Analysis of Fuel Spray Images," <i>IEEE</i> , pp. 622-624 (1987).
	AT	Lopera, J. F. G., <i>et al.</i> , "Improved Entropic Edge-Detection." Paper supported by grant MAR97-0464-C04-02 of Spanish Government. No date given.
	AU	Pastor, J. V., <i>et al.</i> , "Analysis Methodology of Diesel Spray and Flame by Means of In-Cylinder Endoscopic Imaging," (The Institution of Electrical Engineers). Savoy Place, London: IEE (2000).
	AV	Sellens, Rick and Deljouravesh, Rama, "Non-Orthogonal Optical Spray Pattern Analysis," Ninth International Symposium on Applications of Laser Techniques to Fluid Mechanics, Lisbon, Portugal, July 1998.
	AW	Sankar, S.V., <i>et al.</i> , "Time-Resolved Measurement of Liquid Mass Distribution in a Fuel Injector Spray Using an Optical Patternator," <i>Institute for Liquid Atomization and Spray Systems, ILASS Americas '97</i> , pp. 266-270, Ottawa, ON, Canada, May 18-21, 1997.
↓	AX	Wang, G., <i>et al.</i> , "An Optical Spray Pattern Analyzer," <i>Institute for Liquid Atomization and Spray Systems, ILASS Americas '97</i> , pp. 261-265, Ottawa, ON, Canada, May 18-21, 1997.
	AY	
	AZ	
	AR2	
	AS2	
	AT2	
	AU2	
	AV2	

EXAMINER /Gunnar Gissel/	DATE CONSIDERED 11/18/2008
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